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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD JAMES CARGILL

Appeal 2008-2889
Application 10/769,761
Technology Center 3600

Decided:¹ April 21, 2009

Before: JENNIFER D. BAHR, LINDA E. HORNER, and MICHAEL W.
O'NEILL, *Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

Edward James Cargill (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-20. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

The Invention

Appellant's claimed invention is directed to a seal assembly for limiting the amount of movement or distortion of a seal element retained by a seal housing. Specification 1:7-8.

Claim 1, reproduced below, is the only independent claim involved in this appeal.

1. In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly, the seal assembly comprising a seal element retained within a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

(a) one of the planar seal engagement surface and the planar housing engagement surface being comprised of the compressible material;

(b) the other of the planar seal engagement surface and the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material; and

(c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

The Rejections

The Examiner relies upon the following as evidence of unpatentability:

Bent	US 2,462,596	Feb. 22, 1949
Jesswein	US 4,210,405	Jul. 1, 1980
Kalsi	US 4,610,319	Sep. 9, 1986
Chrzanowski	US 4,703,937	Nov. 3, 1987
Müller	US 4,729,569	Mar. 8, 1988

Appellant's Admitted Prior Art (AAPA), Specification 1-2 and Jepson preamble of claim 1.

Appellant seeks review of the Examiner's rejections of claims 1, 7-10, and 16-18 under 35 U.S.C. § 102(b) as being anticipated by Müller; claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Bent,

Chrzanowski, and Jesswein; and claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Müller and Kalsi.

SUMMARY OF DECISION

We AFFIRM-IN-PART.

ISSUES

The issues presented in this appeal are as follows:

- (1) Has Appellant demonstrated that the Examiner erred in rejecting claims 1, 7-10, and 16-18 as being anticipated by Müller, and claims 19 and 20 as being unpatentable over Müller and Kalsi? This issue turns on whether the recess defined between two projections 32 of backup ring 3 of Müller forms an “isolated gap” as called for in claim 1. Appeal Br. 13.
- (2) Has Appellant demonstrated that the Examiner erred in rejecting claim 1 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein? This issue turns on whether the combined teachings of these references would have prompted a person of ordinary skill in the art to form a depression for providing an isolated gap in a planar housing engagement surface of the AAPA seal assembly oriented in a plane normal to the longitudinal axis of rotation of the component. Appeal Br. 17-19.
- (3) Has Appellant demonstrated that the Examiner erred in rejecting claim 2 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein? This issue turns on whether the combined teachings of these references would have prompted a person of ordinary skill in the

art to form a circumferential groove for providing an isolated gap in a planar housing engagement surface of the AAPA seal assembly oriented in a plane normal to the longitudinal axis of rotation of the component. Appeal Br. 19-20.

- (4) Has Appellant demonstrated that the Examiner erred in rejecting claim 3 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein? This issue turns on whether the combined teachings of these references would have prompted a person of ordinary skill in the art to form a circumferential groove extending for a length equal to the circumference of the planar seal engagement surface for providing an isolated gap in a planar housing engagement surface of the AAPA seal assembly oriented in a plane normal to the longitudinal axis of rotation of the component. Appeal Br. 20.
- (5) Has Appellant demonstrated that the Examiner erred in rejecting claims 4-6 and 13-15 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein? This issue turns on whether the combined teachings of these references would have prompted a person of ordinary skill in the art to provide a plurality of substantially parallel circumferential grooves in a planar housing engagement surface of the AAPA seal assembly oriented in a plane normal to the longitudinal axis of rotation of the component. Appeal Br. 21-22.
- (6) Has Appellant demonstrated that the Examiner erred in rejecting claim 7 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein by arguing that the AAPA does not contemplate use of a preloading device in combination with a depression providing an

isolated gap, and for the same purpose as Appellant? Appeal Br. 22-23.

FACTS PERTINENT TO THE ISSUES

1. The ordinary and customary meaning of “isolated” is “separated from others; solitary or singular.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed. 2000), <http://www.bartelby.com> (last visited Apr. 6, 2009).
2. In describing the “isolated gap,” Appellant’s Specification states:

The depression may be comprised of any shape or configuration which is capable of providing an isolated gap between the seal engagement surface and the housing engagement surface. An isolated gap is necessary in order to inhibit the passage of pressurized fluid into the gap which may offset or neutralize the engagement force otherwise exerted between the seal engagement surface and the housing engagement surface.

The depression may be comprised of a single isolated depression or may be comprised of a depression pattern. Preferably the depression is comprised of a depression pattern. Preferably the depression pattern is distributed throughout a substantial portion of the seal engagement surface or the housing engagement surface so that the engagement force is likewise distributed.

Specification 5:26 to 6:8. Appellant’s Specification further states:

The gap (48) is isolated in that the seal engagement surface (34) effectively seals the gap (48) on all sides to trap low (atmospheric) pressure air in the gap while the seal assembly (20) is being

assembled and to inhibit fluid from passing into the gap (48) while the seal is in service.

Specification 10:28 to 11:2.

3. As illustrated in Fig. 2b of Müller, the depression in backup ring 3 defined between two adjacent projections 32 is unsealed at its inner radial extent and thus, is in fluid communication with (i.e., not separated from) the gap between the inner radial surface of the cylindrical outer part 8 and shaft 5. Consequently, the depression is not isolated in the sense described in Appellant's Specification (Fact 2), because it is not effectively sealed on all sides by the seal engagement surface and will not trap low pressure air in the gap formed by the depression.
4. There is no dispute that the subject matter in the preamble of claim 1, preceding "the improvement comprising," was conventional, or known, at the time of Appellant's invention. This conventional, or known, structure includes a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly, and so that the first side is sealed from the second side by the seal assembly, the seal assembly comprising a seal element retained within a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material. The seal element comprises a planar seal engagement surface, and the seal housing comprises a planar housing engagement surface for engaging the planar seal engagement surface. *See* Claim 1; 37 C.F.R. § 1.75(e) (2008).
5. The Examiner finds that Appellant discloses that the known seal assembly (Fact 4) includes a spring used for a preloading mechanism.

- Answer 4. Appellant does not dispute this finding. In fact, Appellant ostensibly confirms the accuracy of this finding, stating that “[t]he Specification at page 1, line 27 to page 2, line 3 does describe the use of springs or other biasing devices to keep the sealing surface of a seal engaged with both the abutting component and with the seal housing.” Appeal Br. 22.
6. In a seal assembly for use between a pair of cooperating elements which may be movable relative to each other, such as a shaft journaled in a casing, as in the conventional seal assembly discussed in Fact 4, Bent teaches forming in at least one wall of a seal housing a recess or depression into which the material of the sealing ring may flow or be displaced when the sealing ring is compressed into the housing for operation. Col. 1, ll. 1-5 and 29-33; fig. 7. This recess helps prevent excessive friction between the elements while at the same time maintaining a tight seal between the elements. Col. 1, ll. 16-23. According to Bent, any fluid pressure communicated to the periphery of the shaft will act on the sealing ring only in a direction to cause the material of the sealing ring to flow into the recess and any unfilled space within the seal housing, thus ensuring against excessive pressure of the sealing ring against the shaft. Col. 2, l. 51 to col. 3, l. 2; col. 4, ll. 34-41. The displacement of the material of the sealing ring into the recess also helps prevent undesired rolling of the sealing ring along the shaft wall. Col. 3, ll. 3-20; col. 4, ll. 34-41.
7. In the particular embodiment illustrated by Bent, the annular recess 37 is formed in the side wall (parallel to the longitudinal axis of rotation of the shaft), rather than in an engagement surface normal to the

- longitudinal axis of rotation of the shaft (component), as called for in claim 1. Fig. 7.
8. Appellant concedes that Bent discloses a circumferential groove which extends for a length equal to the circumference of the engagement surfaces. Appeal Br. 20.
 9. Bent attributes to the shapes and relative proportions of the sealing ring, groove (housing), and recess shown and described criticality in preventing rolling of the sealing ring along the shaft. Col. 3, ll. 10-20. Given the illustrations of figs. 1-7 of Bent, this teaching by Bent would have dissuaded a person of ordinary skill in the art from providing multiple annular recesses in the wall of the housing to achieve the objectives of preventing excessive friction and rolling of the sealing ring along the shaft.
 10. Chrzanowski shows that a sealing ring compressed by high pressure fluid would tend to extrude into a recess formed in a wall normal to the longitudinal axis of rotation of the shaft, tending to key the sealing ring to the housing so as to help prevent slipping of the sealing ring during rotation of the shaft. Col. 3, ll. 14-20; fig. 2.
 11. A person of ordinary skill in the art would have readily appreciated from the combined teachings of Bent and Chrzanowski that an annular recess formed in a wall of the seal housing normal to, rather than parallel to, the longitudinal axis of rotation of the shaft, would achieve the advantages of preventing excess friction and rolling of the sealing ring along the shaft discussed by Bent (*see* Fact 6).
 12. Jesswein teaches providing more than one relief opening 54, 55, 56 in the sealing ring-receiving grooves 24, 26 of a pivot joint to provide a

more uniform distribution of pressure and lubricant within the pivot joint when lubricant is inserted. Col. 3, ll. 49-57; fig. 5. Jesswein's relief openings are provided to prevent extrusion of the sealing ring from the sealing ring-receiving groove when lubricant is inserted. Col. 3, ll. 44-54.

13. The Examiner does not rely on Kalsi for any teaching directed to details of a depression formed in the housing engagement surface or seal engagement surface. Rather, the Examiner relies on Kalsi merely for its teaching to use a seal in a drilling apparatus to isolate lubricating fluid from drilling fluid. Answer 5.

PRINCIPLES OF LAW

In interpreting claim language, we apply the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). *See also In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

“Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention.” *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984). In other words, “there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 1576 (Fed. Cir.

1991). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

Section 103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of ordinary skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

While there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 418.

“A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.* at 421.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 417. We must ask whether the improvement is more than the “predictable use of prior art elements according to their established functions.” *Id.*

Obviousness does not require that all of the features of the secondary reference be bodily incorporated into the primary reference. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Nor is the artisan compelled to blindly follow the teaching of one prior art reference over the other without the exercise of independent judgment. *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984).

ANALYSIS

Issue (1)

Consistent with Appellant’s Specification (Fact 2), we understand an “isolated gap” as called for in claim 1 to be a gap that is separated from all other regions (*see* Fact 1), in the sense of being sealed on all sides by the seal engaging surface, so as to trap low (atmospheric) pressure air in the gap

while the seal assembly (20) is being assembled, and to inhibit fluid from passing into the gap (48) while the seal is in service. The Examiner reads the depression providing an isolated gap in claim 1 on the depression in backup ring 3 defined between two adjacent projections 32 in Fig. 2b of Müller. Answer 3. As noted in our findings above (Fact 3), the depression in backup ring 3 defined between two adjacent projections 32 in Fig. 2b of Müller does not provide an “isolated gap” as called for in claim 1, because it is not effectively sealed on all sides by the seal engagement surface, and will not trap low pressure air in the gap formed by the depression. Therefore, Appellant has demonstrated that the Examiner erred in rejecting claim 1 and claims 2-17 as being anticipated by Müller.

The Examiner does not rely on Kalsi for any teaching that would make up for the deficiency in Müller (Fact 13). Therefore, Appellant has also demonstrated error in the rejection of claims 19 and 20 as being unpatentable over Müller and Kalsi.

Issue (2)

Appellant does not present separate arguments for the patentability of claims 9 and 10 apart from independent claim 1. Thus, in accordance with 37 C.F.R. § 41.37(c)(1)(vii) (2008), claims 9 and 10 stand or fall with claim 1.

There is no dispute that a seal assembly satisfying all the elements of claim 1, with the exception of a depression providing an isolated gap formed in the planar housing engagement surface oriented in a plane normal to the longitudinal axis of rotation of the rotatable component, was known at the time of Appellant’s invention (Fact 4). Bent teaches forming in at least one wall of a seal housing a recess or depression into which the material of the

sealing ring may flow, or be displaced, when the sealing ring is compressed into the housing for operation, to help prevent excessive friction between the elements while at the same time maintaining a tight seal between the elements (Fact 6). According to Bent, any fluid pressure communicated to the periphery of the shaft will act on the sealing ring only in a direction to cause the material of the sealing ring to flow into the recess and any unfilled space within the seal housing, thus ensuring against excessive pressure of the sealing ring against the shaft and preventing undesired rolling of the sealing ring along the shaft wall (Fact 6). In the particular embodiment illustrated by Bent, the annular recess 37 is formed in the side wall (parallel to the longitudinal axis of rotation of the shaft), rather than in an engagement surface normal to the longitudinal axis of rotation of the shaft (component), as called for in claim 1 (Fact 7). Chrzanowski shows that a sealing ring compressed by high pressure fluid would tend to extrude into a recess formed in a wall normal to the longitudinal axis of rotation of the shaft, tending to key the sealing ring to the housing so as to help prevent slipping of the sealing ring during rotation of the shaft (Fact 10).

A person of ordinary skill in the art would have readily appreciated from the combined teachings of Bent and Chrzanowski that an annular recess formed in a wall of the seal housing normal to, rather than parallel to, the longitudinal axis of rotation of the shaft, would achieve the advantages of preventing excess friction and rolling of the sealing ring along the shaft discussed by Bent (Fact 11). Thus, a person of ordinary skill in the art would have recognized that either position would be suitable for the recess to achieve the advantages sought by Bent. Appellant has not persuaded us that the Examiner erred in determining that it would have been obvious in view

of the combined teachings of Bent and Chrzanowski to modify the housing of the known prior art seal assembly by providing a recess in a planar wall (housing engagement surface) normal to the longitudinal axis of rotation of the rotating component. *See Answer 5.* A person of ordinary skill in the art would have been prompted to make the modification to attain the advantages taught by Bent, namely, preventing excessive friction between components and preventing rolling or rotation of the seal element along the rotating component.

We fully appreciate that Chrzanowski discloses a vent hole 40 through the end wall of the seal housing normal to the longitudinal axis of rotation of the shaft, and not a depression providing an isolated gap, as called for in the claim and as taught by Bent, but the Examiner does not rely on Chrzanowski for such a teaching. Rather, Chrzanowski is merely relied upon for its showing that high pressure fluid acting on the seal element will cause the seal element to deform into a recess or depression in the end wall, or engaging surface normal to the axis of rotation of the shaft (rotating component), thus preventing excessive friction between the seal element and the shaft and keying the seal element to the housing to prevent rolling of the seal element along the shaft in the manner discussed by Bent. Thus, a person of ordinary skill in the art would have appreciated that the end wall, or engaging surface normal to the axis of rotation of the shaft (rotating component), would be a suitable location for the recess taught by Bent. The modification proposed by the Examiner is nothing more than the predictable use of prior art elements according to their established functions. Moreover, Appellant has not alleged, much less shown, that such modification would have been beyond the technical grasp of a person of ordinary skill in the art.

For the above reasons, Appellant has not demonstrated error in the rejection of claim 1 and claims 9 and 10, which fall with claim 1, as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.

Issues (3) and (4)

Appellant groups claim 11 with claim 2 and claim 12 with claim 3. Appeal Br. 19 and 20. We select claims 2 and 3 as the representative claims, with claims 11 and 12 standing or falling with claims 2 and 3, respectively.

Appellant concedes that Bent discloses a circumferential groove which extends for a length equal to the circumference of the engagement surfaces, as called for in claims 2 and 3 (Fact 8). Appellant argues that Bent does not teach the groove being formed in a surface in a plane normal to the longitudinal axis of the rotatable component, as also required in these claims, and that Chrzanowski teaches a vent hole, and thus cannot cure this deficiency. Appeal Br. 19 and 20. This line of argument is unpersuasive for the reasons discussed above with regard to Issue (2). Appellant thus has not demonstrated error in the rejection of claims 2, 3, 11, and 12 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.

Issue (5)

Claims 4-6 and 13-15 require that the depression comprise a plurality of substantially parallel circumferential grooves. The Examiner concedes that Bent does not disclose plural grooves, but considers modification to provide plural grooves to be an obvious duplication of parts, and known in the art as evidenced by Jesswein. Answer 5. We do not agree with the Examiner. Bent attributes to the shapes and relative proportions of the sealing ring, groove (housing), and recess shown and described criticality in preventing rolling of the sealing ring along the shaft (Fact 9). Given the

illustrations of figs. 1-7 of Bent, this teaching by Bent would have dissuaded a person of ordinary skill in the art from providing multiple annular recesses in the wall of the housing to achieve the objectives of preventing excessive friction and rolling of the sealing ring along the shaft (Fact 9). The Examiner's reliance on Jesswein for a reason to modify the known seal assembly to provide a plurality of circumferential grooves is misplaced. Jesswein's teachings with regard to the provision of multiple relief openings (Fact 12) would not have prompted a person of ordinary skill in the art to provide multiple annular blind, or isolated, recesses of the type taught by Bent.

For the above reasons, Appellant has demonstrated error in the Examiner's rejection of claims 4-6 and 13-15 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.

Issue (6)

Appellant argues claims 7, 8, 16, and 17 as a group. Thus, we select claim 7 as representative, with claims 8, 16, and 17 standing or falling with claim 7.

Claim 7 requires a preloading mechanism for urging the planar engagement surfaces into engagement with each other. The Examiner finds that Appellant discloses that the known seal assembly (Fact 4) includes a spring used for a preloading mechanism. Answer 4. Appellant does not dispute this finding (Fact 5). Rather, Appellant argues that the admissions in Appellant's Specification with regard to the known seal assembly do not contemplate the use of such a preloading mechanism in combination with a depression, and for the sole purpose of providing an initial engagement force between the engagement surfaces to inhibit the passage of fluid between the

engagement surfaces and thus into the depression. Appeal Br. 22. This argument is not persuasive for two reasons. First, the argument is not commensurate with the scope of claim 7, which does not require that the sole purpose of the preloading mechanism be to provide an initial engagement force between the engagement surfaces to inhibit the passage of fluid between the engagement surfaces and thus into the depression. It is well established that limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). Moreover, in determining whether the subject matter of a claim is obvious, “neither the particular motivation nor the avowed purpose of the [applicant] controls. What matters is the objective reach of the claim.” *KSR*, 550 U.S. at 419. Second, Appellant’s argument attacks the references in isolation, rather than in combination. Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

CONCLUSIONS OF LAW

- (1) Appellant has demonstrated that the Examiner erred in rejecting claims 1, 7-10, and 16-18 as being anticipated by Müller, and claims 19 and 20 as being unpatentable over Müller and Kalsi.
- (2) Appellant has not demonstrated that the Examiner erred in rejecting claim 1 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.

- (3) Appellant has not demonstrated that the Examiner erred in rejecting claim 2 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.
- (4) Appellant has not demonstrated that the Examiner erred in rejecting claim 3 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.
- (5) Appellant has demonstrated that the Examiner erred in rejecting claims 4-6 and 13-15 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein.
- (6) Appellant has not demonstrated that the Examiner erred in rejecting claim 7 as being unpatentable over AAPA, Bent, Chrzanowski, and Jesswein, by arguing that the AAPA does not contemplate use of a preloading device in combination with a depression providing an isolated gap, and for the same purpose as Appellant.

DECISION

The Examiner's decision is affirmed as to claims 1-3, 7-12, 16, and 17 and reversed as to claims 4-6, 13-15, and 18-20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

Appeal 2008-2889
Application 10/769,761

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